CLAIMS

We claim:

1. A composition for inhibition of inducible COX-2 activity and having minimal effect on COX-1 activity, said composition comprising as a first component an effective amount of a diterpene triepoxide lactone species, and as a second component an effective amount of a sesquiterpene lactone species or derivatives thereof.

2. The composition of Claim 1 wherein first and second components are derived from plants or plant extracts.

3. The composition of Claim 1 wherein at least one of said first or second component is conjugated with a compound selected from the group consisting of mono- or di- saccharides, amino acids, sulfates, succinate, acetate and glutathione.

4. The composition of Claim 1, formulated in a pharmaceutically acceptable carrier.

5. The composition of Claim 1, additionally containing one or more members selected from the group consisting of antioxidants, vitamins, minerals, proteins, fats, carbohydrates, glucosamine, chondrotin sulfate and aminosugars.

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6. A composition for inhibition of inducible COX-2 activity and having minimal effect on COX-1 activity, said composition comprising as a first component an effective amount of pharmaceutical grade compound selected from the group consisting of triptolide, triptonide, tripdiolide and tripchlorolide, and as a second component an effective amount of parthenolide, encelin, leucanthin B, enhydrin, melapodin A, tenulin, confertiflorin, burrodin, psilostachyin A, costunolide, strigol, helenalin, 5-α-hydroxy-dehydrocostuslactone, chlorochrymorin, chrysandiol, chrysartemin A, chrysartemin B, cinerenin, curcolone, cynaropicrin, dehydrocostus lactone, dehydroleucodin, dehydrozaluzanin C, deoxylatucin, eremanthine, eupaformonin, eupaformosanin, eupatolide, furanodienone, heterogorgiolide, lactucin, magnolialide, michelenolide, repin, spirafolide, and zaluzanin C.

7. The composition of Claim 6 wherein first and second components are derived from plants or plant extracts.

8. The composition of Claim 6 wherein at least one of said first or second component is conjugated with a compound selected from the group consisting of mono- or di- saccharides, amino acids, sulfates, succinate, acetate and glutathione.

9. The composition of Claim 6, formulated in a pharmaceutically acceptable carrier.

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10. The composition of Claim 6, additionally containing one or more members selected from the group consisting of antioxidants, vitamins, minerals, proteins, fats, carbohydrates, glucosamine, chondrotin sulfate and aminosugars.

11. A composition for inhibition of inducible COX-2 activity and having minimal effect on COX-1 activity, said composition comprising as a first component an effective amount of pharmaceutical grade triptolide or triptonide, and and as a second component an effective amount of a compound selected from the group consisting of parthenolide, encelin, leucanthin B, enhydrin, melapodin A, tenulin, confertiflorin, burrodin, psilostachyin A, costunolide, strigol and helenalin.

12. The composition of Claim 11 wherein first and second components are derived from plants or plant extracts.

13. The composition of Claim 11 wherein at least one of said first or second component is conjugated with a compound selected from the group consisting of mono- or di- saccharides, amino acids, sulfates, succinate, acetate and glutathione.

14. The composition of Claim 11, formulated in a pharmaceutically acceptable carrier.

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15. The composition of Claim 11, additionally containing one or more members selected from the group consisting of antioxidants, vitamins, minerals, proteins, fats, carbohydrates, glucosamine, chondrotin sulfate and aminosugars.

16. A composition for inhibition of inducible COX-2 activity and having minimal effect on COX-1 activity, said composition comprising as a first component an effective amount of pharmaceutical grade triptolide and and as a second component an effective amount of a compound selected from the group consisting of parthenolide, encelin, leucanthin B, enhydrin, melapodin A.

17. The composition of Claim 16 wherein first and second components are derived from plants or plant extracts.

18. The composition of Claim 16 wherein at least one of said first or second component is conjugated with a compound selected from the group consisting of mono- or di- saccharides, amino acids, sulfates, succinate, acetate and glutathione.

19. The composition of Claim 16, formulated in a pharmaceutically acceptable carrier.

20. The composition of Claim 16, additionally containing one or more

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members selected from the group consisting of antioxidants, vitamins, minerals, proteins, fats, carbohydrates, glucosamine, chondrotin sulfate and aminosugars.

21. A composition for inhibition of inducible COX-2 activity and having minimal effect on COX-1 activity, said composition comprising as a first component an effective amount of pharmaceutical grade triptolide and and as a second component an effective amount of pharmaceutical grade parthenolide.

22. The composition of Claim 21 wherein first and second components are derived from plants or plant extracts.

23. The composition of Claim 21 wherein at least one of said first or second component is conjugated with a compound selected from the group consisting of mono- or di- saccharides, amino acids, sulfates, succinate, acetate and glutathione.

24. The composition of Claim 21, formulated in a pharmaceutically acceptable carrier.

25. The composition of Claim 21, additionally containing one or more members selected from the group consisting of antioxidants, vitamins, minerals, proteins, fats, carbohydrates, glucosamine, chondrotin sulfate and aminosugars.

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26. A method of dietary supplementation in animals comprising administering to an animal suffering symptoms of inflammation the composition comprising, as a first component an effective amount of a diterpene triepoxide lactone species and an effective amount of a second component of a sesquiterpene lactone species or derivatives thereof, and continuing said administering of the composition until said symptoms are reduced.

27. The method of Claim 26 wherein the composition is formulated in a dosage form such that said administration provides from 0.001 to 3.0 mg body weight per day of each diterpene triepoxide lactone species and from 0.05 to 5.0 mg body weight per day of each sequesterpene lactone species or derivatives thereof.

28. The method of Claim 26, wherein the composition is administered in an amount sufficient to maintain a serum concentration of 0.1 to 10 nM of each diterpene triepoxide lactone species, and 0.001 to 10 μM of each sesquiterpene lactone species.

29. The method of Claim 26 wherein said animal is selected from the group consisting of humans, non-human primates, dogs, cats, birds, horses and ruminants.

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30. The method of Claim 26 wherein administration is by a means selected from the group consisting of oral, parenteral, topical, transdermal and transmucosal delivery.

31. A method of therapeutic treatment in animals comprising administering to an animal suffering symptoms of arthritis a composition comprising, as a first component an effective amount of a diterpene triepoxide lactone species and an effective amount of a second component of a sesquiterpene lactone species or derivatives thereof, and continuing said administering of the composition until said symptoms are reduced.

32. A method of dietary supplementation in animals comprising administering to an animal suffering symptoms of inflammation the composition comprising as a first component an effective amount of pharmaceutical grade compound selected from the group consisting of triptolide, triptonide, tripdiolide and tripchlorolide, and as a second component an effective amount of parthenolide, encelin, leucanthin B, enhydrin, melapodin A, tenulin, confertiflorin, burrodin, psilostachyin A, costunolide, strigol, helenalin, 5-α-hydroxy-dehydrocostuslactone, chlorochrymorin, chrysandiol, chrysartemin A, chrysartemin B, cinerenin, curcolone, cynaropicrin, dehydrocostus lactone, dehydroleucodin, dehydrozaluzanin C, deoxylatucin, eremanthine, eupaformonin, eupaformosanin, eupatolide, furanodienone, heterogorgiolide, lactucin,

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magnolialide, michelenolide, repin, spirafolide, and zaluzanin C, and continuing said administering of the composition until said symptoms are reduced.

33. The method of Claim 32 wherein the composition is formulated in a dosage form such that said administration provides from 0.001 to 3.0 mg body weight per day of each diterpene triepoxide lactone species and from 0.05 to 5.0 mg body weight per day of each sequesterpene lactone species or derivatives thereof.

34. The method of Claim 32, wherein the composition is administered in an amount sufficient to maintain a serum concentration of 0.1 to 10 nM of each diterpene triepoxide lactone species, and 0.001 to 10 μM of each sesquiterpene lactone species.

35. A method of therapeutic treatment comprising applying to the skin of a human suffering symptoms of acne rosacea a lotion comprising a composition comprising comprising as a first component an effective amount of pharmaceutical grade compound selected from the group consisting of triptolide, triptonide, tripdiolide and tripchlorolide, and as a second component an effective amount of parthenolide, encelin, leucanthin B, enhydrin, melapodin A, tenulin, confertiflorin, burrodin, psilostachyin A, costunolide, strigol, helenalin, 5-α-hydroxy-dehydrocostuslactone, chlorochrymorin, chrysandiol, chrysartemin A, chrysartemin B, cinerenin, curcolone, cynaropicrin, dehydrocostus lactone, dehydroleucodin,

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dehydrozaluzanin C, deoxylatucin, eremanthine, eupaformonin, eupaformosanin, eupatolide, furanodienone, heterogorgiolide, lactucin, magnolialide, michelenolide, repin, spirafolide, and zaluzanin C, and continuing said administering of the composition until said symptoms are reduced.

36. A method of therapeutic treatment comprising applying to the skin of a human suffering symptoms of acne rosacea a lotion comprising a composition comprising as a first component an effective amount of pharmaceutical grade triptolide or triptonide, and and as a second component an effective amount of a compound selected from the group consisting of parthenolide, encelin, leucanthin B, enhydrin, melapodin A, tenulin, confertiflorin, burrodin, psilostachyin A, costunolide, strigol and helenalin, and continuing said administering of the composition until said symptoms are reduced.

37. A method of therapeutic treatment comprising applying to the skin of a human suffering symptoms of acne rosacea a lotion comprising a composition comprising as a first component an effective amount of pharmaceutical grade triptolide and and as a second component an effective amount of a compound selected from the group consisting of parthenolide, encelin, leucanthin B, enhydrin, melapodin A, and continuing said administering of the composition until said symptoms are reduced.

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38. A method of therapeutic treatment comprising applying to the skin of a human suffering symptoms of acne rosacea a lotion comprising a composition comprising, as a first component an effective amount of a diterpene triepoxide lactone species and an effective amount of a second component of a sesquiterpene lactone species or derivatives thereof, and continuing said administering of the composition until said symptoms are reduced.

39. A method of therapeutic treatment comprising applying to the skin of a human suffering symptoms of psoriasis a lotion comprising a composition comprising, as a first component an effective amount of a diterpene triepoxide lactone species and an effective amount of a second component of a sesquiterpene lactone species or derivatives thereof, and continuing said administering of the composition until said symptoms are reduced.

40. A method of therapeutic treatment comprising applying to the skin of a human suffering symptoms of psoriasis a lotion comprising a composition comprising as a first component an effective amount of pharmaceutical grade compound selected from the group consisting of triptolide, triptonide, tripdiolide and tripchlorolide, and as a second component an effective amount of parthenolide, encelin, leucanthin B, enhydrin, melapodin A, tenulin, confertiflorin, burrodin, psilostachyin A, costunolide, strigol, helenalin, 5-α-hydroxy-dehydrocostuslactone, chlorochrymorin, chrysandiol,

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chrysartemin A, chrysartemin B, cinerenin, curcolone, cynaropicrin, dehydrocostus lactone, dehydroleucodin, dehydrozaluzanin C, deoxylatucin, eremanthine, eupaformonin, eupaformosanin, eupatolide, furanodienone, heterogorgiolide, lactucin, magnolialide, michelenolide, repin, spirafolide, and zaluzanin C, and continuing said administering of the composition until said symptoms are reduced.

41. A method of therapeutic treatment comprising applying to the skin of a human suffering symptoms of psoriasis a lotion comprising a composition comprising as a first component an effective amount of pharmaceutical grade triptolide or triptonide, and and as a second component an effective amount of a compound selected from the group consisting of parthenolide, encelin, leucanthin B, enhydrin, melapodin A, tenulin, confertiflorin, burrodin, psilostachyin A, costunolide, strigol and helenalin, and continuing said administering of the composition until said symptoms are reduced.

42. A method of therapeutic treatment comprising applying to the skin of a human suffering symptoms of psoriasis a lotion comprising a composition comprising as a first component an effective amount of pharmaceutical grade triptolide and and as a second component an effective amount of a compound selected from the group consisting of parthenolide, encelin, leucanthin B, enhydrin, melapodin A, and continuing said administering of the composition until said symptoms are reduced.

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